

# DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

# NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208

Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

**Greenheck Fan Corporation** P. O. Box 410. Schofield, WI 54476

#### Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

# DESCRIPTION: Model EVH-602D Aluminum Louver with and without VCD-40 Damper

APPROVAL DOCUMENT: Drawing No. MD-101, titled "EVH-602D Louver w/VCD-40 Damper", sheets 1 through 12 of 12, dated 06/16/2006, with revision 3 dated 07/14/2011, prepared by Greenheck Fan Corporation, signed and sealed by L. David Rice P.E., bearing the Miami-Dade County Product Control revision stamp with the NOA number and expiration date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA revises NOA #11-1103.01 and consists of this page 1 and evidence page E-1, as well as approval document mentioned above.

The submitted documentation was reviewed by Carlos M. Utrera, P.E.

MIAMI DADE COUNTY APPROVED

105/18/2016

NOA No. 16-0201.01 Expiration Date: December 7, 2016 Approval Date: May 26, 2016

Page 1

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

## A. DRAWINGS "Submitted under NOA # 11-1103.01"

1. Drawing No. **MD-101**, titled "EVH-602D Louver w/VCD-40 Damper", sheets 1 through 12 of 12, dated 06/16/2006, with revision 3 dated 07/14/2011, prepared by Greenheck Fan Corporation, signed and sealed by L. David Rice, P.E.

### B. TESTS "Submitted under NOA # 06-0711,11"

- 1. Test report on Large Missile Impact Test per FBC, PA 201, Cyclic Wind Pressure Test per FBC, PA 203, and Uniform Static Air Pressure Test per FBC, PA 202 of a "EVH-602D fixed Aluminum Louver" prepared by Architectural Testing, Inc., Test Report No. 63777.01-602-18, dated 06/05/2006, signed and sealed by Joseph A. Reed, P.E.
- 2. Test report on Wind and Wind Driven Rain Resistance per FBC, TAS 100(A) of a "EVH-602D with VCD-40 Fixed Aluminum Louver with Damper", prepared by Architectural Testing Inc., Test Report No. 62173.01-122-44, dated 03/14/2006 and revised on 05/11/2006, signed and sealed by Joseph A. Reed, P.E.

# C. CALCULATIONS "Submitted under NOA # 11-1103,01"

1. Stress, deflection and anchorage calculations prepared by Rice Engineering, dated 10/28/2011, signed and sealed by L. David Rice, P.E.

#### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

# E. MATERIAL CERTIFICATIONS

1. None.

#### F. STATEMENTS

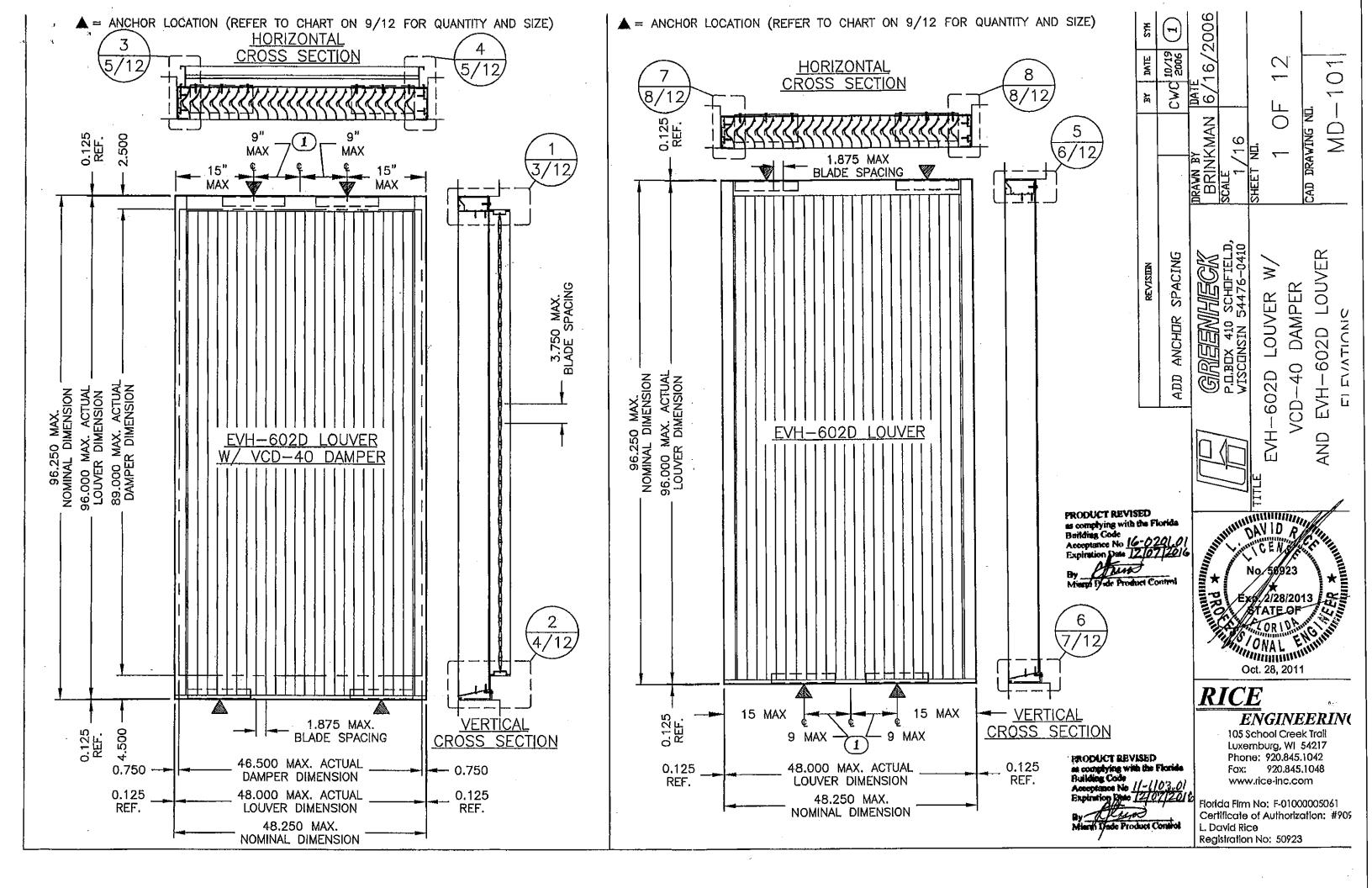
1. Statement letter of code conformance to the 5<sup>th</sup> edition (2014) FBC issued by Rice Engineering, dated 01/11/2016, signed and sealed by L. David Rice, P.E.

### "Submitted under NOA # 11-1103.01"

- 2. Statement letter of code conformance to FBC 2007 and 2010, issued by Rice Engineering, dated 10/28/2011 and 12/22/2011, signed and sealed by L. David Rice, P.E.
- 3. No financial interest letter issued by Rice Engineering, dated 10/28/2011, signed and sealed by L. David Rice, P.E.

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 16-0201.01
Expiration Date: December 7, 2016

Approval Date: May 26, 2016



#### **GENERAL NOTES:**

- 1. IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVERS.
- 2. THE EVH-602D AND EVH-602D/VCD-40 HAVE BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) AND TEST PROTOCOLS TAS-201 (IMPACT), TAS-202 (UNIFORM STATIC PRESSURE); AND TAS-203 (CYCLIC FATIGUE). THE EVH-602D/VCD-40 HAS BEEN TESTED IN ACCORDANCE WITH TAS100(A)-95 (WIND DRIVEN RAIN).
- 3. MAXIMUM SINGLE SECTION SIZE IS 48" WIDE X 96" HIGH.
- 4. MAXIMUM ASSEMBLED LOUVER SIZE IS UNLIMITED WIDE X 96" HIGH.
- 5. SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDING A SUITABLE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER.
- 6. ALL WOOD SUBSTRATE SHALL BE  $\underline{S}G = 0.42$  S.P.F OR BETTER. (3)
- 7. ALL METAL STUD SUBSTRATE SHOULD BE MIN. 16 GA. FY = 50 KSI.
- 8. ALL STRUCTURAL STEEL SUBSTRATE SHALL BE MIN. 1/4" THICK FY = 36 KSI.
- 9. ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI.
- 10. CONCRETE MASONRY SHALL BE ASTM C90, TYPE II, 2500 PSI MIN. 3 GROUT-FILLED.
- 11. LOUVER ASSEMBLY IS TO BE ANCHORED AT HEAD AND SILL ONLY. NO ANCHORAGE IS REQUIRED AT THE JAMBS.
- .12. LOUVER ASSEMBLY IS QUALIFIED FOR A MAXIMUM DESIGN LOAD OF  $\pm/-$  150 PSF.
- 13. LOUVER ASSEMBLY IS QUALIFIED FOR LARGE AND SMALL MISSILE IMPACT RESISTANCE.
- 14. LOUVER ASSEMBLY WITHOUT VCD-40 DAMPER SHALL ONLY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM AND THE ROOM WILL HOUSE WATER RESISTANT/WATER PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.
- 15. LOUVER ASSEMBLY WITH VCD-40 DAMPER MAY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM OR THE ROOM WILL HOUSE NON-WATER RESISTANT/ WATER PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES. (3)
- 16. INSTALLER TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS AS REQUIRED.
- 17. THE VCD-40 MAY BE OPERATED BY THE MANUAL QUADRANT SHOWN ON 12/12 OR BY AN ELECTRIC OR PNEUMATIC ACTUATOR. THE DAMPER'S ACTUATOR IS NOT PART OF THIS APPROVAL, BUT SHALL BE CERTIFIED BY AN INDEPENDENT TESTING AGENCY.
- 18. FRAME CONSTRUCTION. HEADS AND SILLS ARE SQUARE CUT. JAMBS SQUARE CUT @HEAD AND MITERED @SILL. CORNERS ARE SECURED WITH (2) #10x1-1 SMS AND SILICONE SEALED. BLADES ARE SECURED TO HEAD AND SILL WITH (2) #10x1-1 SMS AND WELDED @EACH END.

TEM #	DESCRIPTION	MATERIAL	NOTES
1	LOUVER HEAD	6063-T5 ALUMINUM	Латео
<u>è</u>	LOUVER BLADE	6063-T5 ALUMINUM	1.88 MAX. SPACING
3	LUVER SILL	6063-T5 ALUMINUM	2.00 ((())) 01 (102)(0
4	LUUVER JAMB	6063-T5 ALUMINUM	
5	LOUVER BLANK-OFF (AS REG'D)	6063-T5 ALUMINUM	NOT REQUIRED W/ VCD-40 DAMPER
6A -	ANCHOR (8.0 LONG) (3)	6063-T5 ALUMINUM	REFER TO CHART ON 9/12
613	ANCHUR (10.0 LUNG) (3)	6063-T5 ALUMINUM	REFER TO CHART ON 9/12
6C	ANCHUR (12,00 LUNG)	6063-T5 ALUMINUM	REFER TO CHART ON 9/12
7	#10 X 1.25 TPH TYPE AB SMS	316 SS	7,75' MAX II.C. SPACING (DAMPER ATTACHMENT)
	1/8 DIA, BLIND RIVET	ALUMINUM	3' FROM END & 14' D. C. MAX, SPACING
. 8		SILICONE SEALANT	5 FROM END & 14 OF CHAN, SHOULD
9	SILICUNE SEALANT (3)		3) GRADE 5 MIN, PLATED OR SS (3)
10	INSTALLATION FASTENER	1/4-20 X 1.50 SELF DRILLING (	REFER TO CHART ON 9/12
11	ANCHOR FASTENER (BY OTHERS)	1/4 DIA, WOOD SCREW	REFER TO CHART ON 9/12
12	ANCHOR FASTENER (BY DTHERS)	1/4-14 AISI 1022 SELF-DRILLING SCREW	REFER TO CHART ON 9/12
13	ANCHOR FASTENER (BY DIHERS)	1/4-20 HILTI DRIL-FLEX	REFER TO CHART ON 9/12
	ANCHUR FASTENER (BY OTHERS)	3/8 HILTI KWIK BULT 3(3	
14A (3)	ANCHUR FASTENER (BY DTHERS)	1/4 ITW TAPCON(3)	REFER TO CHART ON 9/12
15 (3)	PERIMETER SEAL (BY DTHERS)	27 1 1 W THE COLO.	11001 0011 100 201111111 0017 07 650
16	DAMPER HEAD/SILL	6063-T5 ALUMINUM	
17	DAMPER HEAD/SILL DAMPER JAMB	6063-T5 ALUMINUM	
18	DAMPER BLADE	6063-T5 ALUMINUM	3.75 MAX, SPACING
19A	NON-DRIVE DAMPER AXLE ASSY.	ZC STEEL PIN W/ DELRIN	370 FIRAL SI HOURU
19A 19B	NON-DRIVE DAMPER AXLE ASSY.	BUSHING  ZC STEEL PIN W/ BRONZE	
1711	HOW DISTACT DUBLES WATE 499[	BUSHING	
19C	NUN-DRIVE DAMPER AXLE ASSY.	ZC STEEL PIN W/ SS BUSHING	
19D	NON-DRIVE DAMPER AXLE ASSY.	SS PIN W/ DELRIN BUSHING	
19E	NUN-DRIVE DAMPER AXLE ASSY.	SS PIN W/ BRONZE BUSHING	
19F	NON-DRIVE DAMPER AXLE ASSY.	SS PIN W/ SS BUSHING	
20A	DRIVE-SIDE DAMPER AXLE ASSY.	ZC/GALV, STEEL	UNIQUE SHAPE AT DRIVER BLADE
20B	DRIVE-SIDE DAMPER AXLE ASSY.	22	UNIQUE SHAPE AT DRIVER BLADE
21A	DAMPER AXLE BUSHING	DËLRIN	
21B	DAMPER AXLE BUSHING	BRONZE	-
21C	DAMPER AXLE BUSHING	22	
ASS	DAMPER BLADE SEAL	EPDM	· · · · · · · · · · · · · · · · · · ·
22B	DAMPER BLADE SEAL	SILICANE	
23	DAMPER JAMB SEAL	\$\$	<del></del>
24	DAMPER TOP/BOTTOM CLOSURE	ALUMINUM	HEIGHT VARIES
25A	DAMPER LINKAGE BAR	GALV, STEEL	
25B	DAMPER LINKAGE BAR	\$2	
26	FORMED 'Z' CLIP	ALUMINUM	12,00 MAX, SPACING
27	#10 X .50 TEK	ZP	6.50 MAX, SPACING
28	SHIM AT LOUVER/DAMPER	ALUMINUM	
29	BLANK-OFF AT LOUVER/DAMPER	ALUMINUM	WIDTH VARIES
30	FOAM TAPE BACKER	FICOTIATION .	USED AT HEAD
31	#8 X .75 TPH TYPE AB SMS	18-8 22	
32A	1/4 DIA, E-CLIP	ZP ZP	<del></del>
32B	1/4 DIA, E-CLIP	SS	
33A	DAMPER BLADE DRIVE LEVER	GALV. STEEL	PRODUCT REVISED
33B	DAMPER BLADE DRIVE LEVER	SS SS	as conceiving with the Firvida
34	REINFORCING STRAP	ALUMINUM	Acceptance No //- [103.0]
34 35A	1/4-20 X 1.25 HH CS	ZP	Proposition Plate 19.10910/1/-
		22	Expiration Date 12/07/2016
358	1/4-20 X 1,5 HH CS	ZP ZP	By Charles
36A	1/4-20 SF NUT		Mismi Dido Product Congres
36B	1/4-20 SF NUT	22	PRODUCT REVISED
37	DAMPER MANUAL QUAD ASSY.	70	es complying with the Florida
38	#14 X .75 TEK	ZP	Building Code
39	1/4-20 X .562 BALL SWIVEL	ZP	Accumulators No. 160-0201.01
40	5/16 DIA, LINKAGE ROD	ZP	Empiration 104 12 07 12016
	DEADLOAD CUIV (DV DTUEDO)	Ī	( TYPE )
41 42	DEADLOAD SHIM (BY OTHERS)  OPTIONAL FLANGE	6063-T5 ALUMINUM	Nimmi Pade Product Control

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DATE 6/1

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**ENGINEERING** 

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www.rlce-inc.com

Florida Firm No: F-01000005061

L. David Rice

Registration No: 50923

Certificate of Authorization: #9090

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LOUVER

02D

EVH

MATERIAL

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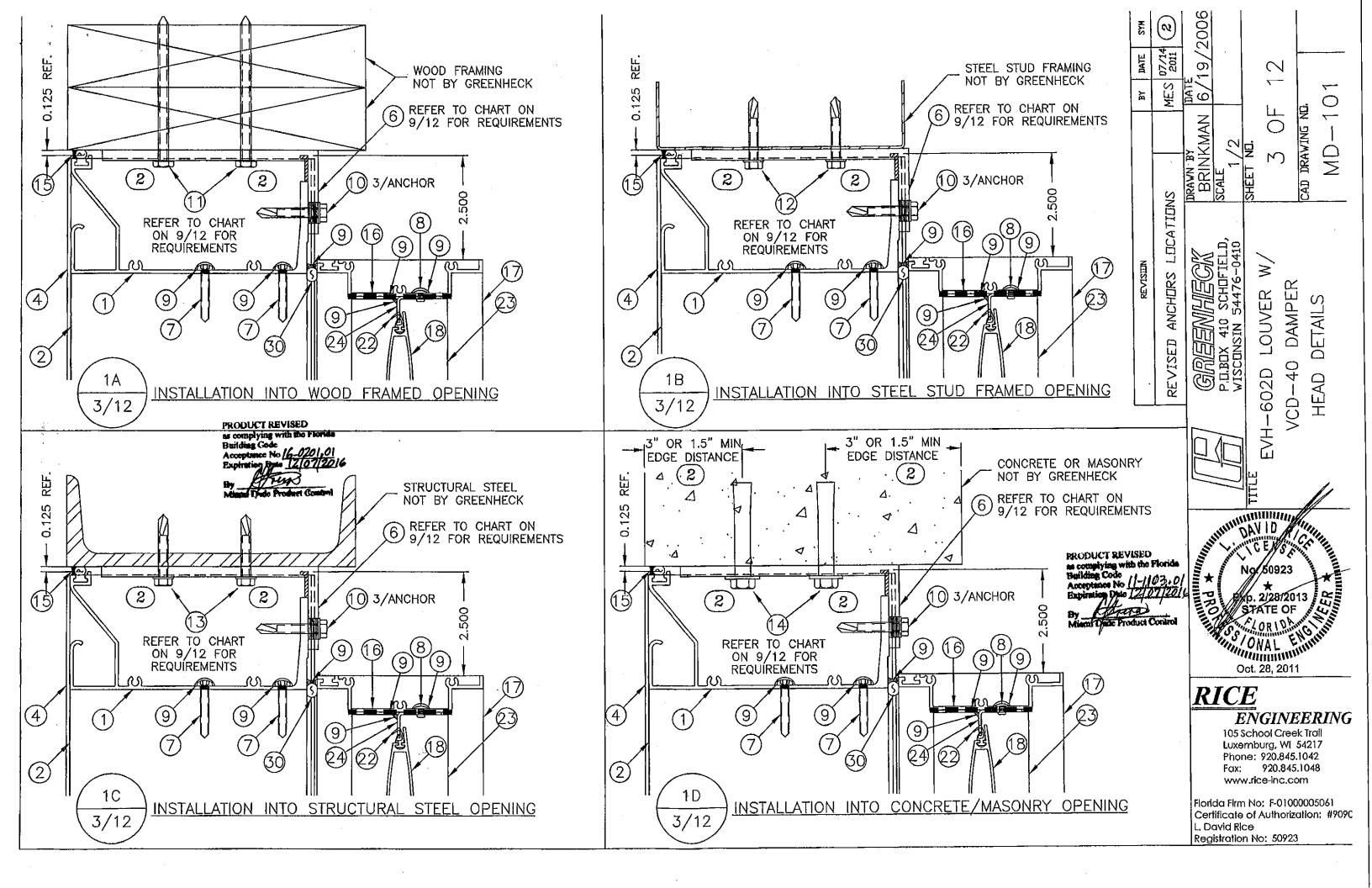
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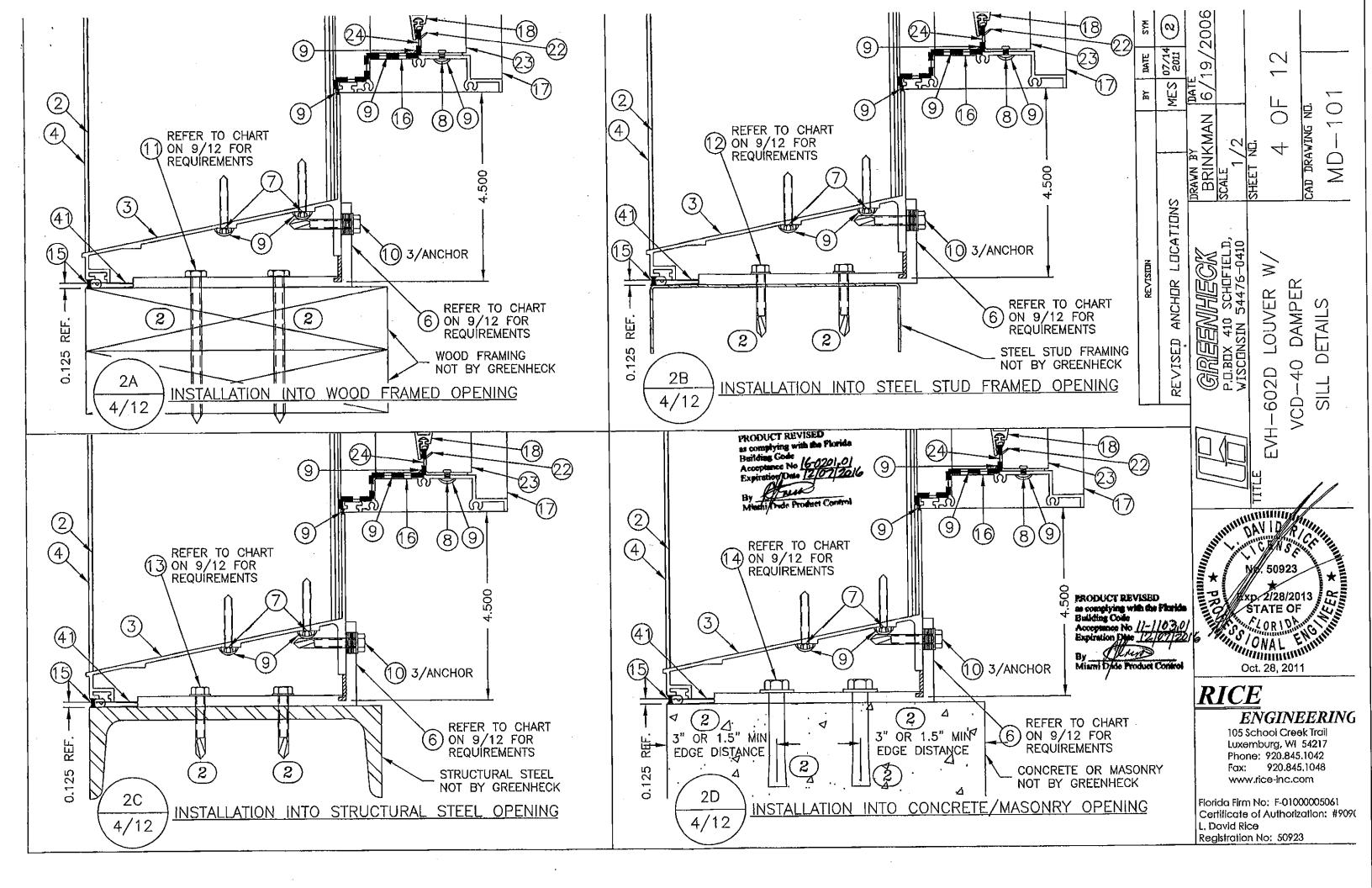
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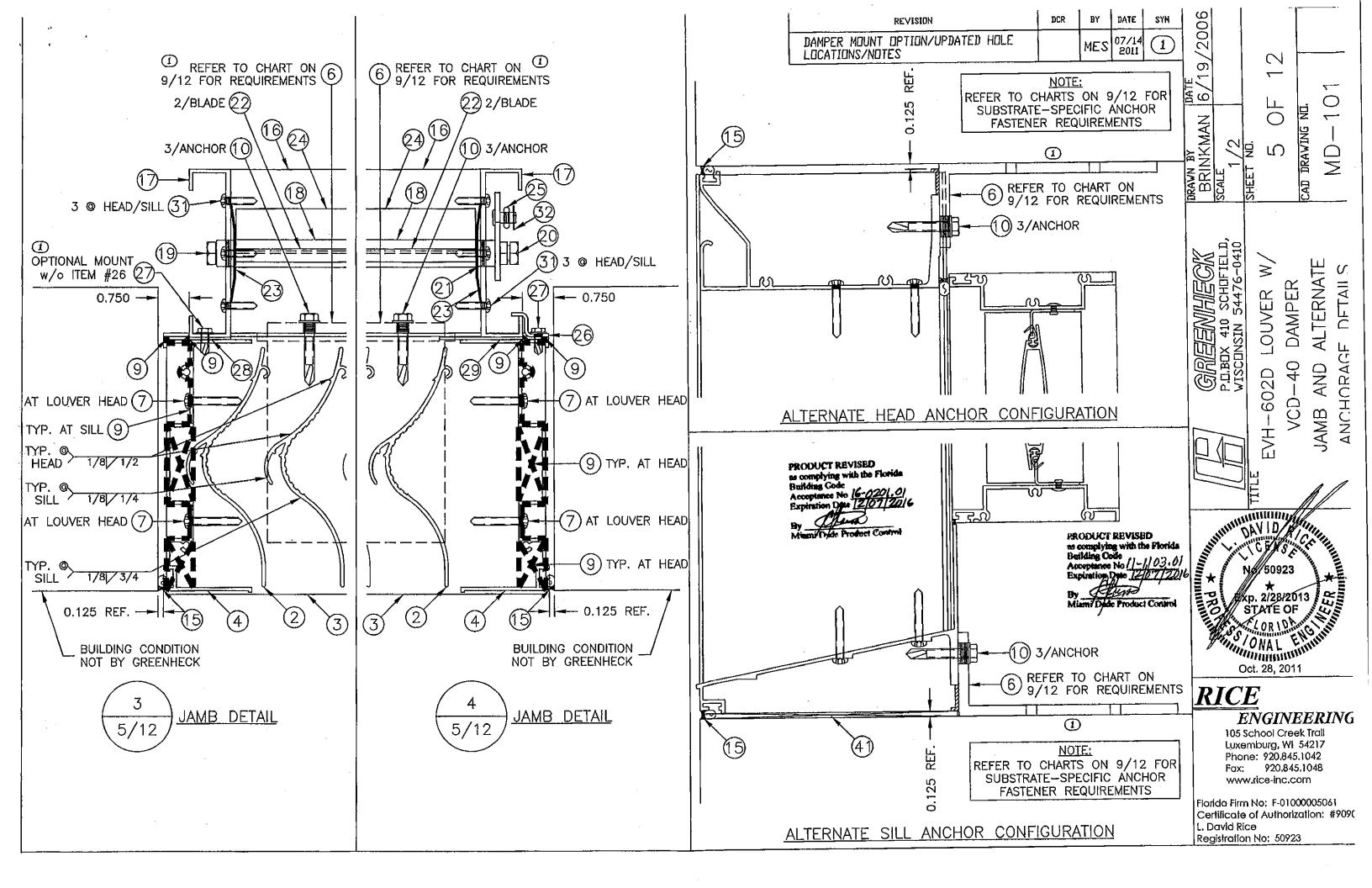
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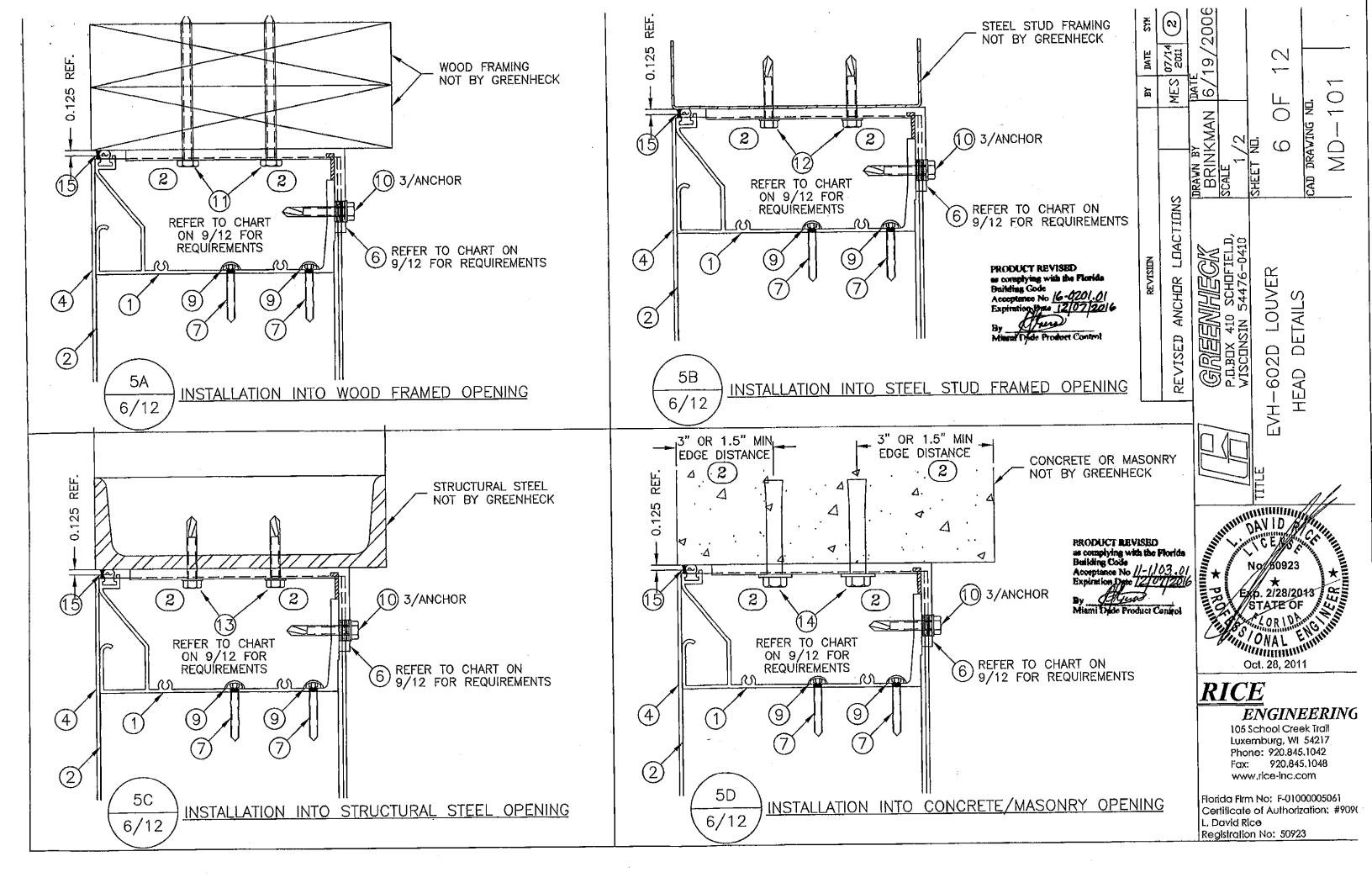
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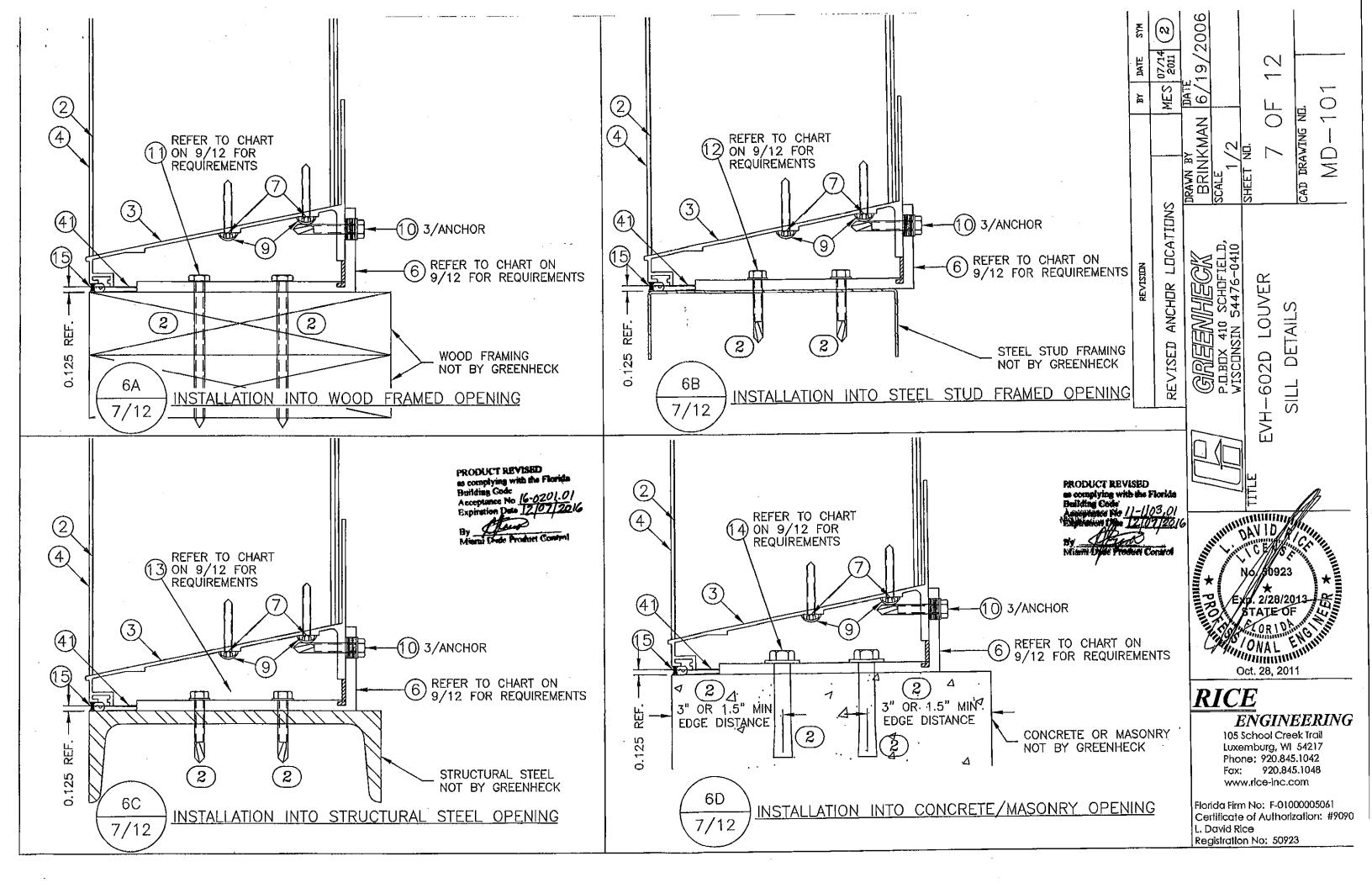
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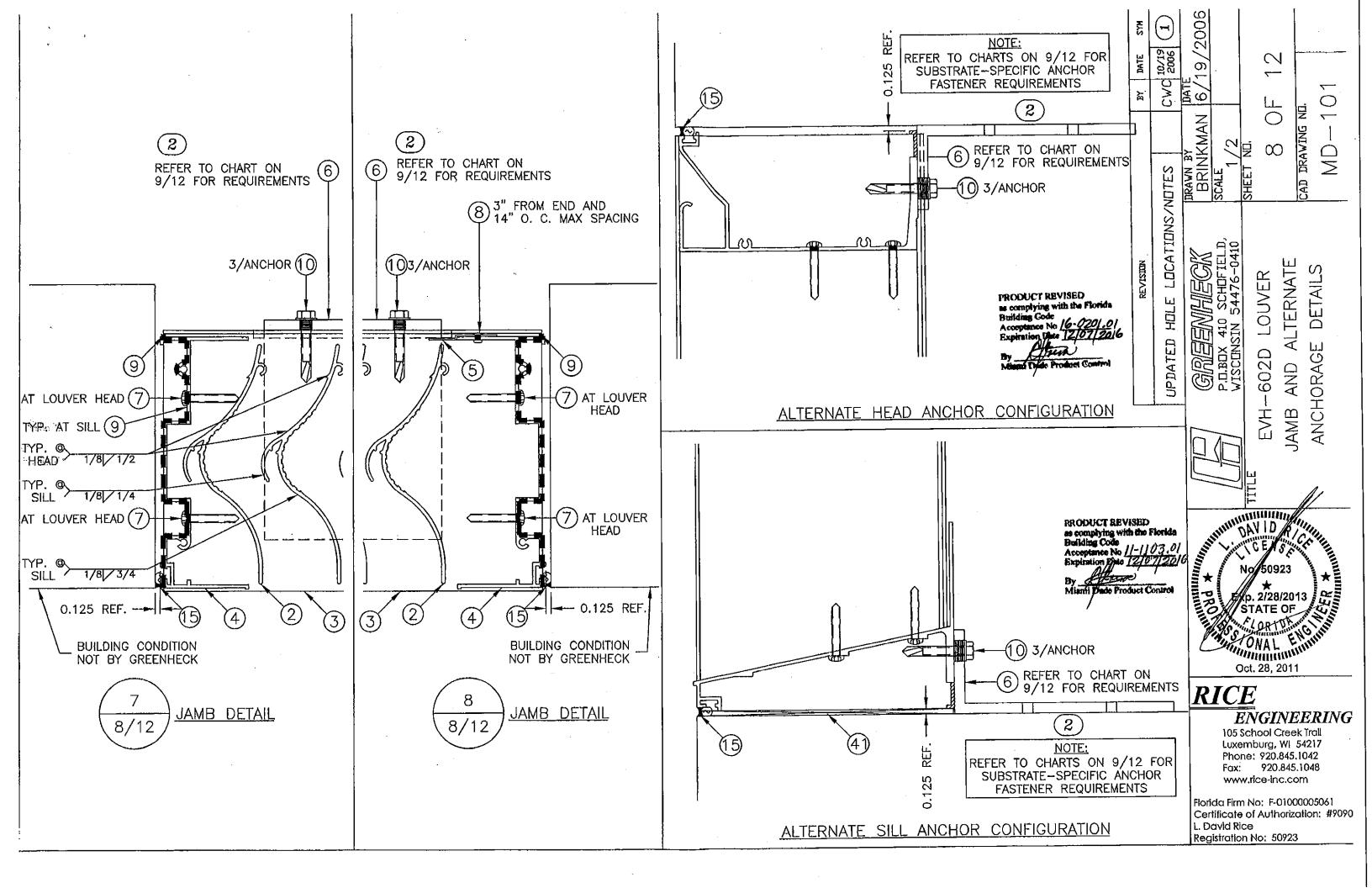












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	Ah	NCHOR FASTENER REQU	JIREMENTS (ANCHORS BY OTHERS)		
NOM. WIDTH	ANCHOR QUANTITY PER HEAD/SILL	ANCHOR LENGTH	SUBSTRATE (MINIMUMS)	ITEM #	QUANTITY PER ANCHOR
	1 200 1101101 0000		WOOD, SG=0.42 SPF	11	2
			STEEL STUD, 16GA	12	4
12" THRU 14"	i	8.0 <b>*</b>	STRUCTURAL STEEL, 1/4" THICK	13	3
			CONCRETE, 2500 PSI MIN	14A	2'`
	.		MASDNRY, 2000 PSI, GROUTED	14B	8
······································	1	10.0"	W00D, SG=0.42 SPF	11	2
			STEEL STUD, 16GA	12	5
>14" THRU 18"			STRUCTURAL STEEL, 1/4" THICK	13	4
			CONCRETE, 2500 PSI MIN	14A	3
			MASONRY, 2000 PSI, GROUTED	14B	10
	1	12.0*	WOOD, SG=0.42 SPF	11	2
			STEEL STUD, 16GA	12	7
>18" THRU 24"			STRUCTURAL STEEL, 1/4" THICK	13	5
			CUNCRETE, 2500 PSI MIN	14A	4
			MASONRY, 2000 PSI, GROUTED	14B	12
	5	8.0*	W00D, SG=0.42 SPF	11	2
			STEEL STUD, 16GA	12	4
>24" THRU 28"			STRUCTURAL STEEL, 1/4" THICK	13	3
			CONCRETE, 2500 PSI MIN	14A	5
			MASONRY, 2000 PSI, GROUTED	14B	8
	2	10.0″	WOOD, SG=0,42 SPF	11	2
			STEEL STUD, 16GA	12	5
>28" THRU 36"			STRUCTURAL STEEL, 1/4' THICK	13	4
			CUNCRETE, 2500 PSI MIN	14A	3
			MASONRY, 2000 PSI, GROUTED	14B	10
	<b>,</b>	12.0*	WOOD, SG=0.42 SPF	11	5
-			STEEL STUD, 16GA	12	7
>36" THRU 48,25"			STRUCTURAL STEEL, 1/4' THICK	13.	5
			CONCRETE, 2500 PSI MIN	14A	4
			MASONRY, 2000 PSI, GROUTED	14B	12

<u>2</u> ) [	ANCHOR FASTENER REQUIREMENTS (ANCHORS BY OTHERS)					
	ITEM #	DESCRIPTION	MIN. EMBED.	MIN. EDGE DIST.	MIN. SPACING	
-	11	1/4" Ø WOOD SCREW, PLATED OR SS	3′	1.	1'	
-	12	1/4-14 SCREW, AISI 1022, PLATED DR SS	0.06* (16GA)	3/8"	3/4*	
	13	1/4-20 DRILL-FLEX/KWIK-FLEX, PLATED OR SS	1/4"	3/8*	3/4"	
•	14A	3/8' HILTI KWIK BOLT 3 ANCHORS, PLATED OR SS	2'	3′	3.6"	
<u> </u>	14B	1/4" ITW TAPCONS, PLATED OR SS	1 1/2"	1 1/2**	2,	

2006 (2) MES 2011  $\mathcal{C}$  $\bigcirc$  $\bigcirc$ CAD DRAWING  $\bigcirc$ MD NEW FASTENER TABLES LOUVER DAMPER LOUVER -602D VCD-40 EVH-602D EVH-PRODUCT REVISED as complying with the Florida Building Gode. Acceptance No 16-0201.01 Expiration Date 12107/2016 AND A STANDARD CENTRAL CEN

RFOURFMFNTS

ANCHOR

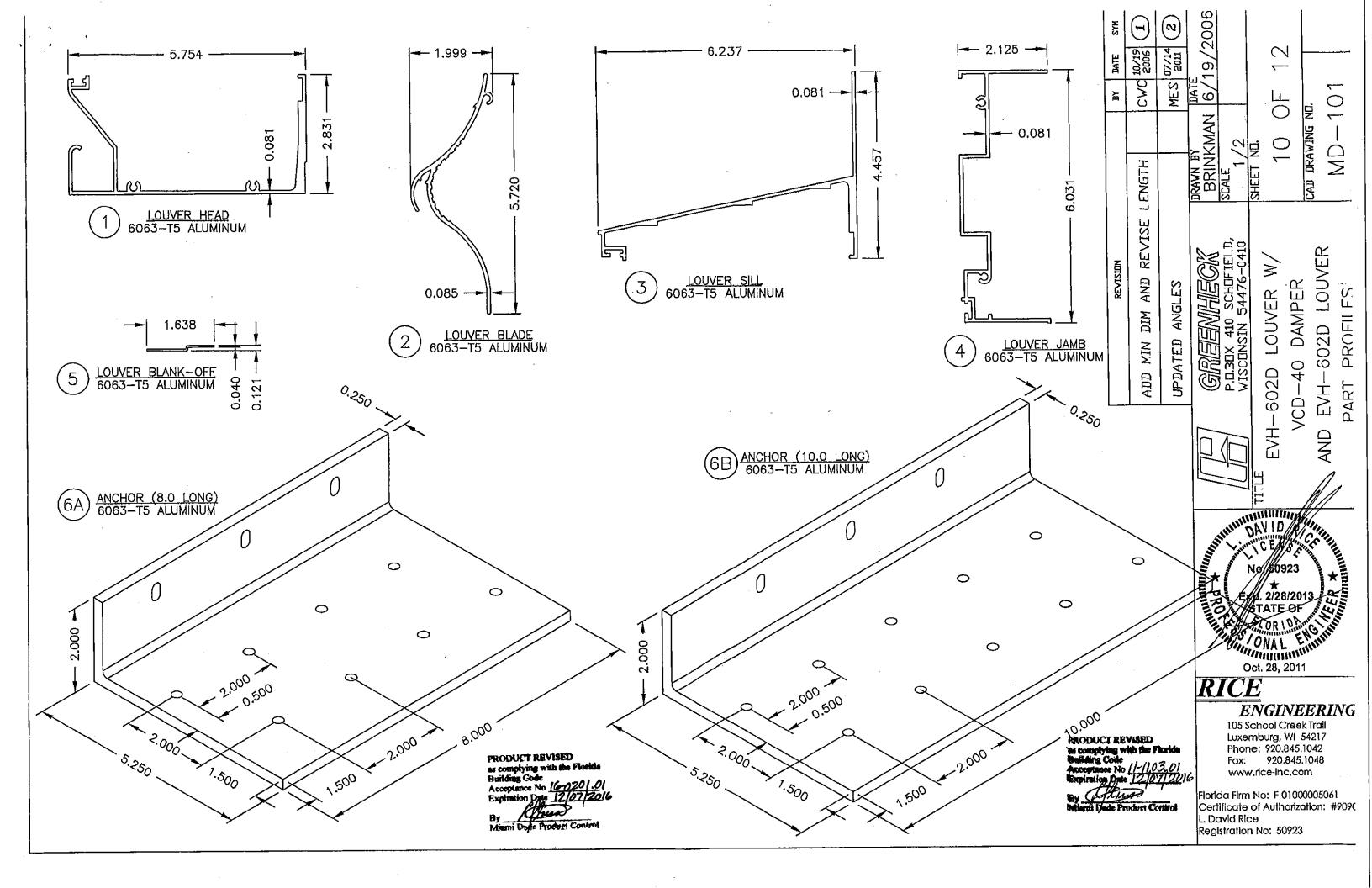
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No /-//03.01
Expiration Pate 12/07/2016

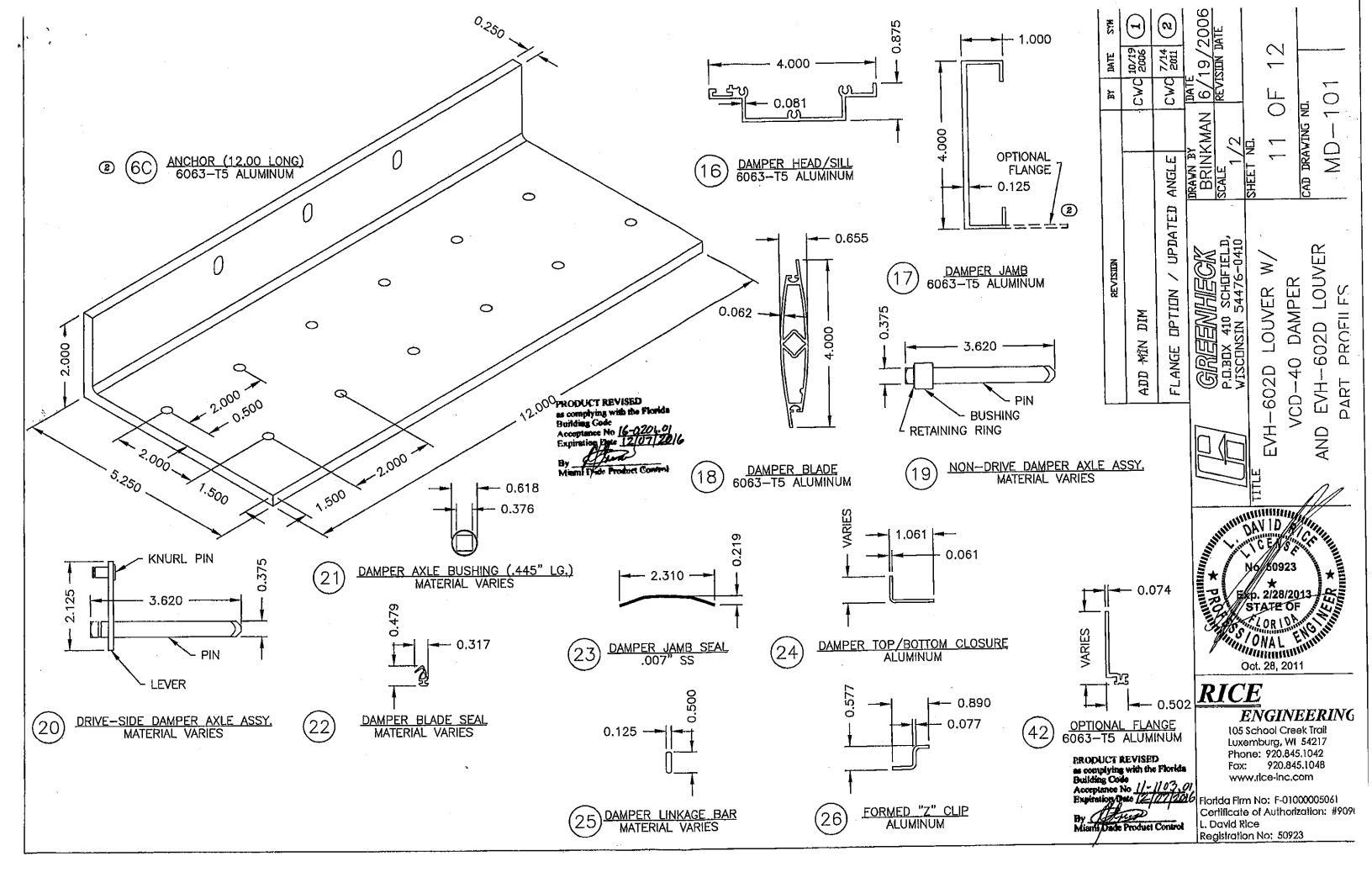
Oct. 28, 2011 **RICE** 

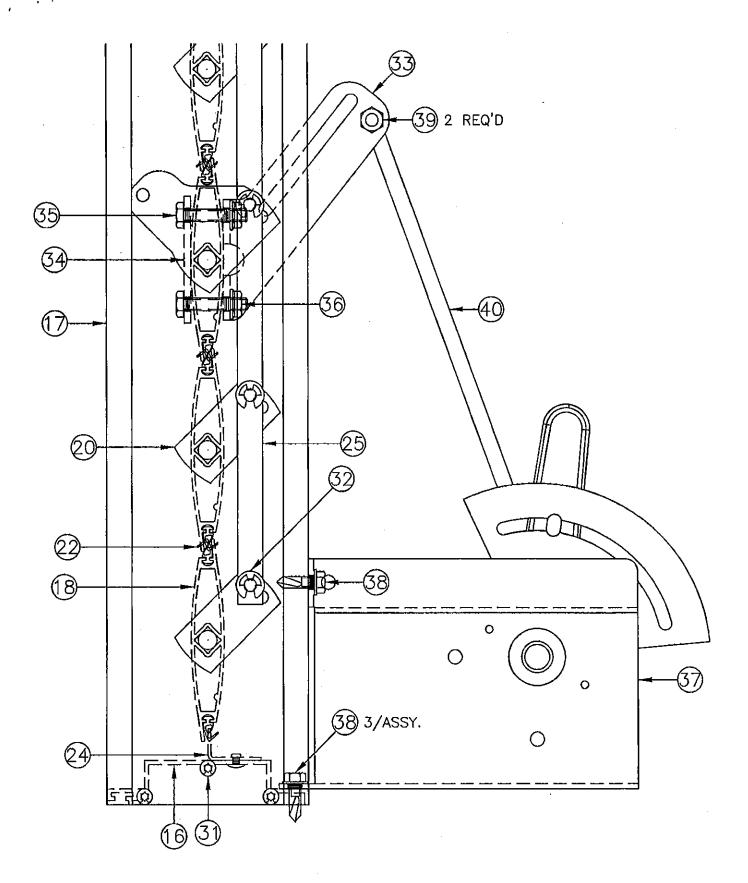
# ENGINEERING

105 School Creek Trall Luxemburg, WI 54217 Phone: 920.845.1042 Fax: 920.845.1048 www.rice-inc.com

Florida Firm No: F-01000005061 Certificate of Authorization: #9090 L. David Rice Registration No: 50923







MANUAL QUAD DAMPER ACTUATOR

PRODUCT REVISED as complying with the Florida Building Gode Acceptance No [6-020]. 0] Expiration Date 12/07/20/6

RRODUCT REVISHD
as complying with the Florida
Hullding Code
Acceptance No 1/-1/03.01
Expiration Date 12/07/2016
By

/2006  $\mathcal{C}\mathcal{A}$ /19 DAT 6/  $\bigcirc$  $\bigcirc$ DRAWN BY BRINKMAN SCALE AD DRAWING  $\sim$  $\mathbb{Z}$ GRIEDNINEGM P.D.BDX 410 SCHOFIELD VISCONSIN 54476-0410 QUAD ACTUATOR DAMPER LOUVER 40 602D VCD-MANUAL William DAV D ONAL ENGLISHMENT

# **RICE**

# ENGINEERING

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